



THE EFFECT OF SERVICE QUALITY ON CUSTOMER SATISFACTION: A CASE STUDY ON PASSENGER FERRY ROUTE BATAM-TANJUNG PINANG

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Abstract

The purpose of this study is to aimed the effect of service quality, and price have positive effect to customer satisfaction. In addition, service quality is measured by five dimensions: tangible, reliability, responsiveness, assurance, empathy, while price is measured by using the fairness indicator of ship ticket price, fair pricing policy, ethical ticket pricing policy, acceptable ticket pricing policy. This study uses questionnaire which is five likertscale. Furthermore, this study used sampling method more over, this study used random samplig technique, Analyzer used is liniear regression analysis and f-test. The results of this study found that service quality has aa positive influence on customer satisfaction, Price has a positive effect on customer satisfaction. This study is used the ferry passenger population of Batam-Tanjung Pinang route, Subsequent research is expected to increase the population becomes more widespread, such as passengers ferry Batam-Tanjung Pinang route and Batam-TanjungUban route, and add new variables such as punctuality.

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1. Introduction

Batam Island is an island mostly surrounded by waters, therefore the potential for sea transport services is very high in Batam Island. Sea transportation services have their own uniqueness, because sea transportation can move people and goods from one place to another in large numbers. To win the competition for the sea transportation services, the company must be able to give satisfaction to its customers.

The company's business competition situation should be able to see the factors that are important and can affect the level of sales, as well as the satisfaction of its customers for the sake of the business continuity of the company itself, to meet all these needs, the Indonesian government seeks more transportation and transportation facilities especially in the field of sea transportation considering the island. The islands in Indonesia are mostly connected through waters. This shows that sea transportation plays an important role in the national transportation system.

Passenger transport is an important part of the sea transport business in addition to cargo transport. The government, especially the Port Office of BP Batam has prepared various sea fleets consisting of passenger ships, one of which is a passenger ferry which operates in several regions of the archipelago with a predetermined route for ferry that is ready to serve the people in Indonesia for the needs of sea transportation services with Services, and rates, whether it is the departure schedule and the arrival schedule of passengers that have been set by the government.

Quality of service, and the role of rates in marine transportation which impact on customer satisfaction is a closely related aspect. Adequate rates, and satisfactory quality of service provide a strong impetus to customers to establish strong ties with customer satisfaction, as well as in the achievement of profits of a company be it a company producing goods or services are also strongly influenced by some of these things. Having loyal customers is the

ultimate goal of all companies, but most of the companies do not know that consumer loyalty can be shaped through several stages, ranging from prospecting potential customers to advocate customers that will bring benefits to the company, J. Supranto (2011).

2. METHODS

2.1 Sample

This research using a qualitative method that is research that aims to determine the relationship and influence between two or more variables. The sample in this study were 30 respondents, but the researchers distributed questionnaires as many as 100 questionnaires. This study aims to examine the effect of independent variables namely service quality, and rates on the dependent variable, namely customer satisfaction. The technique of determining the number of samples in this study is to use Roscoe theory, $10 \times \text{the number of variables (independent + dependent)} = \text{the minimum number of samples}$ (Sugiyono, 2014), in this study the number of variables studied was 3 (independent + dependent), then the number of samples $10 \times 3 = 30$, so that the last number of samples obtained was at least 30 respondents, but in this study researchers distributed 100 questionnaires.

2.2 Variable

The variables used in this study are independent and dependent. Independent variable in this research is service quality and rate and dependent variable used in this research is customer satisfaction.

3. RESULTS AND DISCUSSION

3.1 Characteristics of Respondents

Table 5.1 Characteristics of Respondents

Criteria for Respondents		Total	Presentage
Gender	Male	39	16%
	Girl	41	17%
Use Services	1 Time	7	3%
	2 Time	8	3%
	3 Time	3	1%
	> 3 Time	62	26%
Ferry's Name	Oceanna Baruna	54	23%
	Gembira 5	2	1%
	Sabang Marindo 7	3	1%
	Marina Baru	5	2%
	Samudera Jaya	2	1%
	Sentosa 15	5	2%
	Marina Express	9	4%
Total		240	100%

Based on Table 5.1 it can be seen that from 80 respondents, the number of male passengers was 39 respondents with a percentage of 16% and the remaining 41 respondents with a percentage of 17% were female. It can be concluded that ferry passengers are more female than male. The majority of passengers use ferry services > 3 times, which is 26%, while the use of ferry services only once is 3%, 2 times only 3%, and 3 times only 1%. This shows that passengers often use ferry services. The majority of passengers use the services of the Oceanna Baruna ferry as many as 54 with a percentage of 23%, the remainder use the services of the ferry Gembira 5 by 2 with a percentage of 1%, Sabang Marindo 7 by 3 with a percentage of 1%, Marina Baru by 5 with a percentage of 2%, Ocean Jaya as much as 2 with a percentage of 1%, Sentosa 15 by 5 with a percentage of 2%, and Marina Express by 9 with a percentage of 4%, this concludes that more passengers use ferries with the type of Baruna Oceanna.

3.2 Descriptive Statistics Analysis

This study uses 3 independent variables, namely service quality, rates, and customer satisfaction, and 1 (one) dependent variable,

namely customer satisfaction. Descriptive statistics of service quality variables can be seen in Table 5.2.

Table 5.2 Descriptive Analysis

Frequency of Respondent's Answer (in %)							
Construct	Indicator	STS	TS	N	S	SS	Total
SC	1	0	0	0.1	0.7	0.2	80
	2	0.01	0.06	0.11	0.63	0.19	80
	3	0.01	0.05	0.13	0.59	0.23	80
	4	0	0.06	0.14	0.66	0.14	80
	5	0	0.08	0.24	0.56	0.13	80
	6	0	0.06	0.3	0.48	0.16	80
	7	0	0.05	0.24	0.53	0.19	80
	8	0	0.04	0.23	0.55	0.19	80
	9	0	0.08	0.31	0.5	0.11	80
	10	0	0.06	0.36	0.43	0.15	80
	11	0	0.09	0.38	0.45	0.09	80
	12	0	0	0.18	0.68	0.15	80
Frequency of Respondent's Answer (in %)							
Construct	Indicator	STS	TS	N	S	SS	Total
R	2	0	0.01	0.23	0.64	0.13	80
	3	0	0.01	0.26	0.65	0.08	80
	4	0	0.01	0.20	0.70	0.09	80
CS	1	0	0.03	0.21	0.59	0.18	80
	2	0	0.01	0.18	0.63	0.19	80

Source : Self-Processed

The result of statistical test using SPSS version 21 below produces output which depict from 3 variables in this research is measured by using different number of different statements, on service quality variable measured using 12 statement and from result can be seen that response of majority passenger agree. rate variables are measured using 4 statements and from the table above can be seen the response of passenger's majority agree.

The customer satisfaction variable is measured using two statements, in the table above indicating that the response of the majority passengers agreed. From the above statements it can be concluded that most of the passengers show a good level of satisfaction.

3.3 Classic assumption test

3.3.1 Validity Test

Variable	Statement	Value rCalculate	Sig. rTable	Description
Service Quality	Item 1	0,560	0,000	Valid
	Item2	0,731	0,000	Valid
	Item 3	0,782	0,000	Valid
	Item 4	0,682	0,000	Valid
	Item 5	0,772	0,000	Valid
	Item 6	0,802	0,000	Valid
	Item 7	0,803	0,000	Valid
	Item 8	0,809	0,000	Valid
	Item 9	0,828	0,000	Valid
	Item 10	0,666	0,000	Valid
	Item 11	0,772	0,000	Valid
	Item 12	0,658	0,000	Valid
Variable	Statement	Value rCalculate	Sig. rTable	Description
Rate	Item 1	0,844	0,000	Valid
	Item 2	0,901	0,000	Valid
	Item 3	0,896	0,000	Valid
	Item 4	0,890	0,000	Valid
Customer Satisfaction	Item 1	0,949	0,000	Valid
	Item 2	0,940	0,000	Valid

Source : Self-Processed

Based on it can be seen that each question indicator used in this study has account that is greater than rtable, meaning that the question indicator of each variable is expressed valid and can be used as a variable measurement tool.

3.3.2 Reliability Test

Table 5.4 Reliability test results

Variable	Reability		Conclusion
	Alpha Cronbach	Cut off Alpha Cronbach	
Service Quality (SQ)	0,771	0,70	Reliabel
Rate (R)	0,837	0,70	Reliabel
Customer Satisfaction (CS)	0,915	0,70	Reliabel

Source : Self-Processed

Based on Table it can be seen that all variables have a Cronbach Alpha value greater than 0.70, so it can be concluded that all variables used in this study are reliable.

3.3.3 Multicollinearity Test

Table 5.5 Reliability test results

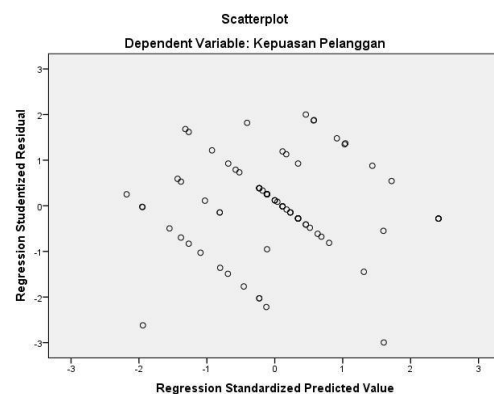
	Tolerance	VIF
Service Quality	0,762	1,313
Rate	0,762	1,313

Source : Self-Processed

Based on Table 5.4 it can be seen the tolerance value of all independent variables > 0.10, and the VIF value of all independent variables < 10.00. Based on these values it can be concluded that there is no multicollinearity.

3.3.4 Heteroscedasticity Test

Picture 5.1 Heteroscedasticity test results



Source : Self-Processed

Based on Picture it can be seen that the points spread and do not form certain clear patterns, so it can be concluded that there is no heteroscedasticity problem.

3.4 Multiple Linear Regression Analysis

Multiple linear regression analysis is used to see the effect of independent variable (X) on the dependent variable (Y).

Table 5.5 Hypothesis test results

Variabel	Regression Coefficient	t _{hitung}	Sig
(Constant)	0,259	0,334	0,739
Service Quality	0,110	6,847	0,000
Rates	0,168	3,314	0,001
F _{hitung}	52,529		
R ²	0,577		

Source : Self-Processed

Based on Table 5.5 obtained by multiple linear regression equation as follows:

$$SQ = 0,259 + 0,110 SQ + 0,168 R$$

Note: ServiceQuality (SQ)

Customer Satisfaction (CS)

1. Constant value of 0.259 states that if QC (Quality of service) and R (Rate) remained or not changed then the value of consistency of QC (Customer's satisfaction) of 0.259.
2. The regression coefficient (SQ) of service quality of 0.110 states that if SQ (Service Quality) increases then CS (customer satisfaction) will increase by 0.110 assuming no increase (constant) R value (Rate).
3. The rate regression coefficient of 0.168 states that if (R) the rate rises then CS (customer satisfaction) will increase by 0.168 assuming there is no increase (constant) in the value of SQ (service quality).

3.5 Hypothesis Testing Results

Hypothesis 1

Based on Table 4.6 it can be seen that the probability value of significance is 0.000. This study uses One Tailed test so its significance value is divided by 2 so $0,000 / 2$ is 0,000, The significance value is smaller than 0.05 so it can be concluded that H1 is supported.

Hypothesis 2

Based on Table 4.6 it can be seen that the significance value is 0.001. This study uses One Tailed test so the significance value is divided by 2 so that $0.001 / 2$ is 0,000 The value of significance is smaller than 0.05 so it can be concluded that H2 is supported.

3.6 Data analysis

Results data processing and statistical tests show that service quality has a positive effect on customer satisfaction, and rate has a positive effect on customer satisfaction.

Summary of hypothesis test results in this study can be seen in Table 5.7.

Table 5.7 Summary Of Hypothesis Test Results

	<i>Hypothesis</i>	<i>Sig</i>	<i>Conclusion</i>
H1	<i>Service Quality has a positive effect on customer satisfaction</i>	0,000	<i>Supported</i>
H2	<i>Rates have a positive effect on customer satisfaction</i>	0,001	<i>Supported</i>

Source : Self-Processed

Service Quality has a positive effect on customer satisfaction.

Based on statistical test results, H1 is supported. This means that the higher the quality of the ferry service, the higher the customer satisfaction. The results of this study are supported by research Zameer et al. (2015) states that the quality of service and customer satisfaction have a significant effect on the perceived value of customers.

Rates have a positive effect on customer satisfaction.

Based on the result of statistical test, H2 shows that the ferry rate has a positive effect on customer satisfaction, this means the higher the perception of consumer price, the higher the level of customer satisfaction. This is supported by research conducted by Consuegra, (2007) states that customer satisfaction and fair perceived price are positively related to customer loyalty.

4 Conclusions

The purpose of this study is first to provide empirical evidence of the effect of service quality on customer satisfaction, and provide empirical evidence of the effect of rates on customer satisfaction. The sample used in this research is 30 passengers ferry Batam-Tanjung Pinang route.

Therefore, from the two hypotheses used all hypotheses are supported conclusions are:

1. Service Quality has a positive effect on customer satisfaction so that the higher the quality of ferry service to eat the higher the customer satisfaction using the ferry, so passengers will feel comfortable and safe during the trip using the ferry services.
2. Rates have a positive effect on customer satisfaction, this means the higher the perception of consumer prices, the higher the level of customer satisfaction.

LIMITATIONS

Researchers have limitations in doing this research. Limitations are the location of research or study area and data collection is only covered TelagaPunggur City Harbor. Research object is a service facility passenger ferry in Port Telaga Punggur. This research focuses only on passenger ferry route-BatamTanjung Pinang.

SUGGESTION

Suggestions given for further research are: first increase the number of research samples, for example by increasing the population of passenger's ferry Batam-Tanjung Pinang route with passenger route Batam-Tanjung Uban. Both add other variables such as timeliness.

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